



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/727,246 | 12/03/2003 | Nigel V. Spurr | H0005898 | 5403 |

7590 05/30/2006

Kris T. Fredrick
Honeywell International, Inc.
101 Columbia Rd.
P.O. Box 2245
Morristown, NJ 07962

| |
|----------|
| EXAMINER |
|----------|

LUGO, CARLOS

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3676

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/727,246 | SPURR ET AL. | |
| | Examiner | Art Unit | |
| | Carlos Lugo | 3676 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on March 30, 2006

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 22-41 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,765,884 to Armbruster in view of US Pat No 5,304,926 to Wu.

Regarding claims 22 and 32, Armbruster discloses a latch assembly control system method comprising the steps of integrating a latch assembly (Figure 1) with a motor (53) having at least one gear (26) for actuating a plurality of components of the latch assembly.

Associating a gear sensor (37) with the latch assembly. The gear sensor will sense the movement of the gear to thereby sense the position of the at least one gear to thereby provide a reference point registration and calibration via the collected data (Col. 5 Line 27 to Col. 6 Line 5). The gear will complete less than one revolution to obtain the data.

However, Armbruster fails to disclose that the gear sensor will sense the position of a gear tooth. Armbruster sensor (37) senses the position of the gear body.

Wu teaches that it is well known in the art to provide a gear sensor (10) that would sense the position of a gear tooth (26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the sensor described by Armbruster sensing the gear tooth, as taught by Wu, since regardless where the sensor is positioned with respect to the gear, it would collect the data regarding the position of the gear.

As to claims 23 and 33, Armbruster fails to disclose that the sensor has a magnet. Armbruster disclose that the sensor cooperates with a magnet (50) at the shaft (56).

Wu teaches that it is well known in the art to provide the magnet at a Hall sensor so as to sense the position of the gear.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device described by Armbruster with the magnet at the Hall sensor, instead on the gear, as taught by Wu, since the position of the magnet at the device will be considered as a design consideration within the art since it would not affect the data collection by the sensor with respect to the gear.

As to claims 24 and 34, Armbruster discloses that the latch assembly is provided in a vehicle door.

As to claims 25 and 35, Armbruster discloses that the gear tooth sensor is integrated with the latch assembly (Figure 1).

As to claims 26,36 and 41, Armbruster discloses that the system further includes a vehicle management module (35).

As to claims 27 and 37, Armbruster discloses that the sensor will communicate data recollected from the gear.

As to claims 28 and 38, Armbruster discloses that the controlling is made by the vehicle management module (Col. 5 line 58 to Col. 6 Line 5).

As to claims 29,30,39 and 40, Armbruster fails to disclose a plurality of gear tooth sensors to collect data from the gear.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than one sensor in a device as Armbruster disclose in order to obtain more accurate data.

As to claim 31, Armbruster discloses that at least one component of the door latch assembly is actuated by the vehicle management module based on data collected from the at least one gear tooth sensor.

Response to Arguments

4. Applicant's arguments filed March 30, 2006 have been fully considered but they are not persuasive.

After further consideration, the 102(b) rejection in view of Armbruster has been withdrawn since Armbruster sensor 37 do not sense the position of the gear tooth; it sense the position of the gear body. Nevertheless, a new rejection in view of Armbruster, as modified by Wu has been made on the record.

As to the arguments presented by the applicant with respect that it would not be obvious to combine the teachings of Wu into the device described by Armbruster (Page 9 Line 8), the arguments are not persuasive. Wu clearly teach that it would be obvious to provide the magnet at the sensor, instead of the gear, so as to collect data of the position of the gear tooth. Therefore, the rejection is maintained.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number 571-272-7058. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

A handwritten signature in black ink, appearing to be 'CL' followed by a horizontal line and a small flourish.

Carlos Lugo
Patent Examiner AU 3676
May 24, 2006.